

# HP StorageWorks

## SMI-S XP

### Release Notes



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SMI-S XP Release Notes

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## Release Notes Information

This SMI-S XP Release Notes document includes the following information:

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## Intended Audience

This document is intended for customers who use the HP StorageWorks SMI-S XP 2.1 with HP StorageWorks Command View XP (CV XP) 2.1.

## Accessing Future Product Updates

HP strongly recommends that customers sign up online using the Subscriber's choice web site at <http://www.hp.com/go/e-updates>.

- Subscribing to this service provides you with e-mail updates on the latest product enhancements, latest versions of drivers, and firmware documentation updates as well as instant access to other product resources.
- After signing up, you can quickly locate your products by selecting **Business support** and then **Storage** under Product Category.

## Other SMI-S XP Documentation

This release of SMI-S XP 2.1 also includes:

- HP StorageWorks Command View XP Installation guide

Additional documentation, including whitepapers and best-practices documents, is available at the HP web site at: <http://www.hp.com>.

## SMI-S XP Overview

SMI-S XP 2.1 enables CIMOM-capable management software to manage XP arrays using SMI-S v1.0.2.

SMI-S XP resides on the CV XP Management Server. It uses the Storage Management Initiative Specification (SMI-S), which is a standard developed by the Storage Networking Industry Association (SNIA).

## SMI-S XP Features

Following are the features supported by SMI-S XP:

- Profile
  - Array
  - Sub profiles
    - Access Points
    - Disk Drive
    - Location

- LUN Creation
- LUN Masking and Mapping
- Pool Manipulation Capabilities and Settings
- Software

SMI-S XP 2.1 includes partial support for the Disk Drive sub profile. Following are the classes that SMI-S XP 2.1 supports for this sub profile:

- HPXP\_ConcreteComponent
- HPXP\_StorageExtent
- HPXP\_MediaPresent
- HPXP\_DiskDrive
- HPXP\_PhysicalMedia
- HPXP\_PhysicalPackage
- HPXP\_ProductPhysicalComponent
- HPXP\_StorageProduct
- HPXP\_Realizes
- HPXP\_PackagedComponent
- Profile
  - Server
- Other Features
  - Java Authentication and Authorization Service (JAAS) based security
  - Service Location Protocol (SLP) Discovery
  - Secure Socket Layer (SSL)
  - Partial implementation of Job Control features. See [Changes in This Release](#), page 4 for more information.
  - Alert Indications
    - Event Notifications

## Supported Operating Systems

SMI-S XP 2.1 is supported on all Windows platforms supported by CV XP 2.1.

## Supported Arrays

SMI-S XP 2.1 supports the following arrays:

- XP 128
- XP 1024
- XP 12000

## Command View Minimum Revision Level

SMI-S XP 2.1 is an integrated component of Command View XP 2.1.

## Changes in This Release

Following are the changes in this version of SMI-S XP:

- [Changes in Installation Procedure](#), page 5
- [Changes to LUN Masking and Mapping](#), page 5
- [Partial Implementation of Job Control](#), page 5
- [Changes in Implementation of Volume Creation](#), page 6
- [Changes in Namespace Feature](#), page 7
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## Changes in Installation Procedure

You can install SMI-S XP 2.1 along with CV XP 2.1. SMI-S XP resides on the CV-XP management station and cannot function independent of CV-XP. In addition, you can install, remove, and update SMI-S XP independent of CV XP.

However, SMI-S XP cannot function if CV XP is not installed on the same system.

## Changes to LUN Masking and Mapping

Following are the changes made to the LUN masking and mapping subprofile:

- **CreateProtocolController:**  
This method creates a ProtocolController in the array in Standard host mode.
- **CreateStorageHardwareID:**  
This method creates a StorageHardwareID in the cache maintained by the provider. It also maintains the association with StorageClientSettingData. HardwareIDs created through CreateStorageHardwareID are persisted across restart of CIMOM Services.
- **AssignAccess:**  
This method takes StorageHardwareID as Subject and ViewProtocolController as Target, as per the specification. When a ProtocolController is created and then the first StorageHardwareID is assigned access to the ProtocolController, the mode of the ProtocolController changes to the host mode (associated StorageClientSettingData) of the StorageHardwareID.  
No new StorageHardwareID with a different host mode can be assigned access to this ProtocolController. A StorageHardwareID with a host mode different from that of the ProtocolController can be assigned access to a ProtocolController only when the existing host mode of the ProtocolController is Standard and the ProtocolController does not have any StorageHardwareIDs assigned access to it.
- **AttachDevice:**  
This method can be called with or without specifying the Device Number (Lun ID). If the Device Number is not specified, an unused Device ID is used as the Lun ID. If the Device Number is specified, it must be in hexadecimal. The maximum value of the Device Number in hexadecimal is FF.
- **DeleteProtocolController:**  
This method deletes the ProtocolController from the array. The StorageHardwareIDs associated with this ProtocolController are not deleted.
- **DeleteStorageHardwareID:**  
This method deletes the StorageHardwareID from the array.
- **DetachDevice:**  
This method detaches the specified device from the ProtocolController.
- **Remove Access:**  
This method can take either SystemSpecificCollection as Subject in Input or an individual StorageHardwareId as Subject in Input. If SystemSpecificCollection is specified as input, all StorageHardwareIDs in the SystemSpecificCollection are denied access to the Protocol Controller. If a StorageHardwareID is specified as input, then access is denied for that particular StorageHardwareID. The Remove Access method does not delete the StorageHardwareID for which access is being removed.

## Partial Implementation of Job Control

Partial support for Job Control has been implemented for volume creation. Following are the features of the implementation:

- ElementName is a mandatory input and the created Job has an ID of the form ElementName.Array\_Serial\_Number.Cu:Ldev, where Cu:Ldev is the information of the StorageVolume that is to be created.
- The client receives the return vector immediately, with the Job COP populated in the Job parameter of the OutputVector.

- The status of the Job can be found out by enumerating ConcreteJob instances. Following are the four states that are supported:
  - Running: Operation started and running.
  - Exception: Operation failed due to errors. The client must issue the requests again.
  - Killed: Operation killed. The provider is unable to determine the state of the Job as the provider loses contact with the array during the operation.
  - Completed: Job is done successfully.
- After the job is complete, the AffectedJobElement is populated. This association does not exist for Jobs that are not in completed state.
- The extrinsic method DeleteConcreteJob, provided by the StorageConfigurationService, deletes Jobs. The input to DeleteConcreteJob is the Job COP in the input parameter, Job.

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**NOTE:** See [Appendix A](#), page 12 includes sample code that you can use for the Volume Creation feature.

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## Changes in Implementation of Volume Creation

This version of SMI-S XP includes changes to the Volume Creation feature. This feature is now implemented within the JobControl profile. See [Partial Implementation of Job Control](#), page 5 for more information. In previous versions of SMI-S XP, the CreateOrModifyElementFromStoragePool method mapped to an existing unused volume. In this release, the method CreateOrModifyElement creates a new volume or combines an existing volume to provide a larger volume. Following are the changes made to this feature:

- **Create New Volumes**

You can create new volumes when a null is passed in the TheElement parameter to the CreateOrModifyElementFromStoragePool method. The maximum size of a volume that you can create is 14226480 KB (13893.046875 MB) and the minimum size is 36864 KB (36 MB). On successful completion of this job, the number of volumes increases by 1.

If the size of the volume to be created is greater than the maximum size or lesser than the minimum size, then a return code 32772 (Invalid size for creating a volume) is returned.

- **Combine Existing Volumes - LUSE**

You can combine existing volumes to form a larger volume (LUSE). The client must provide the CIMObjectPath of the StorageVolume (to be used as the top LDev) in the TheElement parameter to the CreateOrModifyElementFromStoragePool method. The specified LDev becomes the master LDev (top LDev) for volumes that are to be combined. After a successful completion of this job, the number of volumes decrease by  $n-1$ , where  $n$  is the number of volumes required to provide a LUSE of a specified size. The size of the volume is an integer multiple of the size of the topLDev specified in the TheElement parameter. For example, if the size of the topLDev is 5 GB and the required size of the larger volume is 18 GB, then 4 volumes of 5 GB are combined to provide a larger volume of 20 GB.

The constraints for combining the LDevs to form LUSE are:

- LDevs combined to form the LUSE must be from the same parity group.
- None of the LDevs must have a path assigned to them.
- None of the LDevs must be a part of a LUSE.
- None of the LDevs must be a part of the Auto LUN.
- LDevs must have the same CU number.
- LDevs must have the same emulation type. It can be only OPEN-3/8/9/E/L
- LDevs must be of the same size.
- Top LDev must numerically be the smallest LDev.

---

**NOTE:** A LUSE consists of LDevs of the same CU. The top LDev must have the smallest number, excluding the CU value. For example, 0:01 instead of 0:a0.

---

- Maximum number of LDevs that can be combined is 36.
- Current implementation allows a combining of volumes from the same storage pool.

After a LUSE is created, the number of StorageVolume instances will decrease. When a LUSE is deleted, the number of StorageVolumes instances increase. Use the `HPXP_StorageVolume(top ldev)->HPXP_Component->HPXP_StorageExtent` association to query LDevs that form the LUSE.

The client can use `GetSupportedSizes( )` call and `GetSupportedSizeRange( )` call to receive information before creating or combining volumes. The `GetSupportedSizes` call returns a list of all individual free spaces available in a particular pool.

The size of free space less than 36 MB is not shown as the minimum size required for creating a volume is 36 MB.

The `GetSupportedSizeRange` call returns the minimum size, maximum size and volume divisor (increment) of the LDevs for a particular pool. Use this call to receive information about the minimum size and the maximum size of the LDevs that can be combined.

The `GetSupportedSizeRange` call returns the value 0 for all the output parameters (maximum size, minimum size, volume divisor) for pools with `OPEN-*` and `OPEN-V` emulation types. The `GetSupportedSizeRange` call considers only the volumes of the standard size present in a particular pool and does not consider volumes with a different size, while calculating minimum size, maximum size and volume divisor. The default size of storage pool is the size of emulation for that particular pool.

You can delete the existing volumes by passing the COP for `cu:ldev` of the volume that is to be deleted to the `RemoveFromStoragePool`. You cannot delete an existing volume if it has a path defined to it.

If the volume is a LUSE volume, then all composite LDevs that are created from the volume, are dissolved into available LDevs.

The procedure for creating a LUSE using the Command View Graphical User Interface and Command Line Interfaces is different from the SMI-S interfaces. In the CV interfaces, you can create a LUSE across more than one parity group. Currently, you can only create a LUSE within a single parity group using the SMI-S interface. As a result, the current SMI-S interfaces may not show details of a LUSE when it is created across multiple parity group.

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**IMPORTANT:** The LUSE function may change with subsequent releases.

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## Changes in Namespace Feature

For enumerating the data from `CIM_Registeredprofile`, `HPXP_Registeredprofile`, `HP_RegisteredServerProfile`, `HPXP_RegisteredSubProfile` classes, the client must query the root namespace. This input is different from the previous version of SMI-S XP, where the client could enumerate these classes from `root/XP` namespace.

## Changes in Supported Error Codes

Following are the error codes supported by this release of SMI-S XP:

- 32769 - The Storage Pool specified is invalid.
- 32770 - The license for create custom volume operation is not installed.
- 32771 - The create custom volume operation is not supported.
- 32772 - Invalid size for creating a volume
- 32773 - An unsupported emulation type has been entered to create a volume
- 32774 - The free space in the storage pool is not sufficient to create the specified volume.
- 32775 - Top ldev of the luse specified is incorrect.
- 32776 - The specified LDev is a part of existing LUSE.
- 32777 - The specified ldev already has a path associated with it.
- 32778 - The specified ldev specified is a command device.
- 32779 - The specified ldev is a reserve volume.

- 32780 - The number of volumes needed to create the specified LUSE is greater than 36.
- 32781 - Remote exception occurred.
- 32782 - There are insufficient number of ldevs for LUSE operations.
- 32783 - The size of the top ldev specified is the same as the size of the LUSE requested.
- 32784 - The requested size of the LUSE is smaller than the size of the top ldev specified.
- 32785 - The ldev has a path associated with it.
- 32968 - The specified size is not supported.
- 32969 - The command view server is busy.
- 32970 - The command view server is not ready.
- 32971 - The specified request failed.
- 32972 - The array is currently locked by another user.
- 32973 - The serial number of the specified array is invalid.
- 32974 - The server has cached data and is currently getting latest data from array.
- 32975 - The server encountered an error while getting data from array.
- 33069 - There are no free lun ids available for the specified operation.
- 33070 - The protocol controller specified is not present in the port.
- 33071 - The specified storage hardware id is not present.
- 33072 - The specified storage hardware id is not in the proper format.
- 33073 - The storageclientsetting data is invalid.
- 33074 - The specified hostgroup is invalid.
- 33075 - The specified port is invalid.
- 33076 - The specified protocolcontroller already exists in the port.
- 33077 - The specified storagehardwareid already exists in the port
- 33078 - The specified cu is invalid.
- 33079 - The specified ldev is invalid.
- 33268 - The target parameter is not specified.
- 33269 - The subject parameter is not specified.
- 33270 - The target parameter specified is incorrect.
- 33271 - The subject parameter specified is incorrect.
- 33272 - The view parameter is not specified.
- 33273 - The device parameter is not specified.
- 33274 - The view parameter specified is incorrect.
- 33275 - The device parameter specified is incorrect
- 33276 - The elementName parameter not specified.
- 33277 - The port parameter is not specified.
- 33278 - The protocol parameter is not specified.
- 33279 - The ElementName parameter is incorrect.
- 33280 - The port parameter is incorrect.
- 33281 - The protocol parameter is incorrect.
- 33282 - The setting parameter is not specified.
- 33283 - The WWN parameter is not specified.
- 33284 - The WWNType parameter is not specified.
- 33285 - The Setting parameter passed is specified.
- 33286 - Storage hardware ID parameter passed is incorrect.
- 33287 - Storage hardware ID Type parameter passed is incorrect.
- 33288 - The privilege parameter is not specified.
- 33289 - The privilege parameter specified is incorrect.

- 33290 - The lunSize parameter is not specified.
- 33291 - The poolCOP parameter is not specified.
- 33292 - The ElementType parameter is not specified.
- 33293 - The ElementType parameter is incorrect.
- 33294 - The Element parameter is not specified.
- 33295 - The Element parameter is incorrect.

#### Command View Error Codes

- 42869 - The port name specified is invalid.
- 42870 - The host mode specified is invalid.
- 42871 - One of the device ldevs is reserved.
- 42876 - The fibre addresses specified are invalid.
- 42877 - The fibre topology is out of range.
- 42880 - The specified top ldev is reserved.
- 42881 - The ldev to be expanded has a path defined.
- 42882 - Either the top ldev or device ldev(s) is expanded.
- 42883 - One of the specified device ldevs is invalid.
- 42884 - Emulation type of the device ldev is not the same as the top ldev.
- 42885 - Size of the top ldev is not the same as the device ldev.
- 42886 - Invalid port name for adding path to an expanded lun.
- 42887 - The path specified to the top ldev is invalid.
- 42888 - The specified ldev is not valid.
- 42889 - The non top ldev cannot be used for attach device method.
- 42890 - The reserved ldev cannot be used for attach device method.
- 42891 - The emulation type specified is invalid.
- 42892 - The specified cu:ldev already has a path allocated.
- 42893 - The specified lun does not exist in the array.
- 42898 - The specified ldev does not have a path defined.
- 42901 - Invalid command set for modify command device
- 42906 - There are no paths defined for the specified port.
- 42907 - The device number specified is invalid.
- 42909 - The specified device is not found.
- 42910 - The Port data is null, array may not be refreshed properly.
- 42912 - Cannot perform LUSE operation as data passed is invalid.
- 42915 - The CU value specified is invalid.
- 42916 - The length of CU & ldev array is not equal, cannot get LUSE objects.
- 42917 - The ldev data is null, array may not be refreshed properly.
- 42921 - The port name is not specified.
- 42922 - The LUN is not specified.
- 42933 - Ldev ID specified in the LUN does not match with that of ldev.
- 42935 - The host mode is already set.
- 42938 - The ldev should be expanded and should be the first in the expanded unit.
- 42939 - Device ldevs are not specified.
- 42948 - Command device security is already set.
- 42949 - Maximum number of paths have been already defined for the port.
- 42950 - Host group does not contain the specified LUN.
- 42951 - The ldevs used for creation of LUSE must be in same CU.
- 42953 - LUSE with the specified TOP ldev ID does not exist.

- 42955 - The specified host mode is invalid OR is out of range.
- 42956 - Command device cannot be set as an expanded volume.
- 42958 - Total number of LDEVs in the LUSE to be formed exceeds 36.
- 42960 - Either the top ldev or device ldev is a non-top device ldev.
- 43070 - The specified host group is not defined for the port.
- 43071 - The specified lun group is not defined for the port.
- 43072 - The security switch is not enabled to perform any security operation.
- 43073 - Cannot add new storage hardware IDs as maximum number of storage hardware IDs already defined for the port.
- 43074 - Specified storage hardware id is already defined for the port.
- 43075 - Specified storage hardware id nickname is already defined for the port.
- 43076 - Specified storage hardware id is not defined for the port.
- 43077 - Specified storage hardware id is an part of other storage hardware id group defined for the port.
- 43078 - Security switch is already set for port.
- 43082 - Cannot add new host group as maximum number of hostgroups are already defined for the port.
- 43083 - Specified hostgroup nickname is already defined for the port.
- 43084 - Default hostgroup of a port cannot be deleted.
- 43086 - Storage hardware id is not specified.
- 43087 - Host group is not specified.
- 43088 -The specified nickname contains special characters.
- 43089 - The specified storage hardware id should contains only hexadecimal characters.
- 43094 - The specified host group is invalid.
- 43098 - Specified Lun is not defined for the port.
- 43101 - Security Switch is already reset for the port.
- 43108 - The length of the storage hardware id name should be 16 characters.
- 43109 - The host group nickname is not specified.
- 43110 - The storage hardware id name is not specified.
- 43112 - The specified LUN exceeds the number of LUNs in an accessgroup.
- 43113 - There is only one LUN in the accessgroup and this LUN cannot be deleted. Please delete the access group itself.
- 43114 - The specified LUN does not exist in the accessgroup.
- 43115 - One or more specified LUNs do not exist in the accessgroup.
- 43118 - Minimum of two storage hardware id's are needed for creating access group.
- 43121 - There are no connected storage hardware ids.
- 43371 - The CHA data is null, array may not be refreshed properly.
- 43372 - The passed CHA name is invalid.
- 43373 - CHA name passed is null.
- 43375 - The CHP data is null, array may not be refreshed properly.
- 43376 - The DKA data is null, array may not be refreshed properly.
- 43377 - The passed DKA name is null.
- 43379 - The DRR data is null, array may not be refreshed properly.
- 43380 - The CSW data is null, array may not be refreshed properly.
- 43381 - CSW name is invalid.
- 43382 - The SM data is null. Array may not be refreshed properly.
- 43383 - The cache memory data is null. Array may not be refreshed properly.
- 43384 - Invalid shared memory name.

- 43385 - Invalid cache memory name.
- 43386 - The status data is null. Array may not be refreshed properly.
- 43388 - The pool data is null. Array may not be refreshed properly.
- 43390 - The specified pool name is invalid.
- 43391 - The specified CU/ldev values are invalid.
- 43392 - The DKP data is null, array may not be refreshed properly.
- 43393 - The DKU name is null.
- 43394 - The DKU name is invalid.
- 43395 - The Domain ID is invalid.
- 43396 - The Disk ID is invalid.
- 43397 - The DKP ID is invalid.
- 43398 - The DRR ID is invalid.
- 43399 - The cluster ID is invalid.
- 43400 - The Cache memory ID is invalid.
- 43401 - The CSW ID is invalid.
- 43402 - The DKA ID is invalid.
- 43403 - The CHA ID is invalid.
- 43404 - The CHP ID is invalid.
- 43407 - The DKU Data is Null
- 43469 - Specified CU is not configured in the array.
- 43470 - Specified ldev is not configured in the array.
- 43471 - CU ID exceeds the possible range of CUs in the array.
- 43473 - ldev ID is out of ldev range.
- 43475 - Specified CU is not present in the storage pool.
- 43478 - The specified storage pool value is out of range.
- 43480 - The last normal ldev cannot be deleted.
- 43482 - Specified storage pool is not configured in the array.
- 43490 - Array Data not refreshed properly.
- 43673 - The CU does not have any free ldev ids.
- 43674 - The ldevs in the CU cannot be deleted.
- 43676 - Specified ldevs do not belong to the specified storage pool.
- 43703 - The ldevs specified already exists in the array.
- 43704 - Operating on old data. The ldevs specified have been deleted already or may not be existing in the array.
- 43713 - Specified size of Custom Volume(s) is more than the maximum SIZE of the selected emulation Type.
- 43716 - Create custom volume operations are not supported for OPEN-M Emulation Type.
- 43717 - Create custom volume operations are not supported for OPEN-L Emulation Type.
- 43739 - There are no Normal ldevs defined for this CU.
- 43740 - There are no Custom ldevs defined for this CU.
- 52768 - There is an internal error. Please try the operation again and if the problem persists, please contact the HP support representative.

## Known Limitations

Following are the limitations in this release of SMI-S XP:

- Simultaneous active management of two different arrays from the client is not supported.
- The `CreateStorageHardwareID` cache is deleted when SMI-S XP is re-installed.

## Appendix A

Following is a sample client code in Java that you can use with the JobControl procedure:

```
inVector.add(new CIMProperty(new String("Goal"), new
CIMValue(null)));
inVector.add(new CIMProperty(new String("Size"), new CIMValue(new
UnsignedInt64(size))));
inVector.add(new CIMProperty(new String("InPool"), new
CIMValue(poolCop)));
inVector.add(new CIMProperty(new String("ElementType"), new
CIMValue(new UnsignedInt16(2))));
inVector.add(new CIMProperty(new String("TheElement"), new
CIMValue(null)));

    // Mandatory Parameter - ElementName that is used in Job's
InstanceID
inVector.add(new CIMProperty(new String("ElementName"), new
CIMValue("Comp_name")));

CIMValue retValue =
cimClient.invokeMethod(objPathStorageConfigService,
"CreateOrModifyElementFromStoragePool",inVector,outVector);
String tmpretValue = retValue.getValue().toString();

    // When the return value is 4096, a ConcreteJob is created and
Creation
    // of the St.Volume with that Job Id is running in the background.

if(Integer.parseInt(tmpretValue) == 4096) {
Enumeration e = outVector.elements();
    while (e.hasMoreElements()) {
        CIMProperty cp = (CIMProperty) e.nextElement();
        if (cp == null) {
            System.out.println("Null parameter");
        }
        else {
            if (cp.getName().equalsIgnoreCase("Size")) {
UnsignedInt64 lunSize = (UnsignedInt64)getValue(cp);
                System.out.println("lun size is : " +
lunSize.longValue());
            }
            else if (cp.getName().equalsIgnoreCase("Job")) {
                jobCop = (CIMObjectPath) getValue(cp);
                System.out.println("Created JobCop is {" +
jobCop.toString() + "}");
            }
        }
    }
}
```

```

    }

else
    System.out.println("Return value is :" +
Integer.parseInt(tmpretValue));

CIMObjectPath volCOP = null;
// Code to loop through and check if the status of the
// Job has changed from "RUNNING"

    if(jobCop != null) {

        String state = null ;
        while(true) {
CIMInstance ci = cimClient.getInstance(jobCop,false);
state = (String)(ci.getProperty("JobStatus").getValue()).getValue();
if( !state.equals("RUNNING"))
            ;
else
            break;
        }

        // If the Job's Status is updated to COMPLETED state, then the
        // Corresponding StorageVolume COP can be obtained through the
        // AffectedJobElement Association.

        if(state.equals("COMPLETED")) {
Enumeration e =
cimClient.associatorNames(jobCop,"HPXP_AffectedJobElement","HPXP_Stor
ageVolume",null,null);
while (e.hasMoreElements()) {
volCOP = (CIMObjectPath) e.nextElement();
System.out.println("Volume COP created is "+volCOP);
}

        }

    }

}

```

Following is a sample Java code for the DeleteConcreteJob:

```

CIMObjectPath objPathStorageConfigService=null;
CIMObjectPath jobCOP = null;

```

```

String instanceid = getInput("Please enter the instanceid of the job
to be deleted in the form elementName.array.cu:ldev : ");
String InstanceID = null;
boolean flag1 = false;

Enumeration enumStorageConfigService = cc.enumerateInstanceNames (
    new CIMObjectPath("HPXP_StorageConfigurationService","root/XP"));
if (enumStorageConfigService.hasMoreElements())
    objPathStorageConfigService = (CIMObjectPath)
enumStorageConfigService.nextElement();

Enumeration jobs = cc.enumerateInstanceNames(new
CIMObjectPath("CIM_ConcreteJob","root/XP"));

while(jobs.hasMoreElements()) {
jobCOP = (CIMObjectPath)jobs.nextElement();
InstanceID = (String) cc.getProperty(jobCOP,"InstanceID").getValue();
if(InstanceID.equalsIgnoreCase(instanceid)) {
flag1 = true;
break;
}

}

if(flag1 == false ) {
System.out.println("No instances of ConcreteJob ");
return;
}

Vector inVector = new Vector();
Vector outVector = new Vector();
inVector.add(new CIMProperty(new String("JOB"), new
CIMValue(jobCOP)));
CIMValue retValue =
cc.invokeMethod(objPathStorageConfigService,"DeleteConcreteJob",inVec
tor,outVector);

System.out.println("Retrun Value is
"+retValue.getValue().toString());

```